WHAT REGULATION MUST ACCOMPLISH IF IT IS TO BE PERMANENT

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I do not pretend to be wise enough to answer the question which I have here propounded as the subject for this discussion, for in order to do this it would be necessary for me to be able to forecast the future and know in advance what economic and governmental changes are yet to take place. While the principles of justice are immutable, yet the conditions to which these principles apply are always changing. For this reason the methods that must be applied to the solution of our governmental problems vary as conditions of society change. We may, however, quite properly discuss fundamental propositions and of necessity deal with them in the light of the present and proceed upon the assumption that the present aspect of our problems will have a tendency to continue.

Regulation is not a new thing. It is well, however, to have in mind the fact that regulation, as we are here understanding the term, is only one aspect of a broader conception. Regulation in this broader conception is as old as civilization itself and its justification is found in the maxim which I roughly translate, "So use thine own as not to injure another's." All private property is held subject to this well known and justly accepted rule. If a man lived alone upon some Robinson Crusoe isle there would be no need for regulation of any sort, but as soon as we have two we have relationship, and relationship which must be controlled by some convention. Thus all law arises from the necessity of regulating relationships. Neither personal liberty nor the right to private property requires nor will permit to the individual absolutely unrestrained action. In democracy we urge the utmost individual liberty consistent with the rights of other individuals in society, but beyond this we may not go, and it is elemental that always we must use our individual liberty and our private property so as not to do injury to others who have rights as we do, and this rule is a part of our title to our property and our right to our liberty. While it is

easy to state and agree with this general rule, yet the economic problems of all times have arisen from the differences on the question as to what limitation should be put upon individual liberty and the use of private property in order to accomplish the desired result. The fact that the one in possession of liberty and holding property has usually had the larger say in determining when his use of these possessions of his worked injury to others has further complicated the problem.

Regulation in its broader significance is the restraint which society, as an institution, places upon individuals. Regulation, as we generally accept the term, however, represents a more intimate hold by the state upon a property, or a business, or a person than the one we have here generally referred to. Even the more intimate interference—if you desire to use that term—in private affairs which we now know as regulation is nothing new. In Rome the grain trade was regulated and regulated rigidly even as to price before the dawn of the Christian era. In the Middle Ages the butcher and the baker had their greed held in check by the arm of the law, and innkeepers and common carriers were regulated from the beginning of Anglo-Saxon civilization. And the need for these specific forms of regulation was no different in kind than the need for the general regulation which justifies all law and which arises from one of the fundamental traits of human nature. There is implanted in each of us an acquisitive and selfish spirit which makes us, one and all, prefer our own advantage, and when the time comes that we must make a decision between our neighbor's advantage and our own, ordinarily we do not consciously take the worse of it. When in any-individual case a man must make the decision as to whether or not he is using his own property or indulging his personal liberty in a way not to injure his neighbor, if he is given a free hand and any one is injured it will be the neighbor. Therefore, it follows that in every case where we are in a position, in the absence of restraint, to force our neighbor to accept our decision in a case involving his and our own rights, outside restraint must be imposed else injustice will result.

I have presented these fundamental propositions to you because they have a large bearing upon our problem. In every case of monopoly or other condition of unequal dealing, the state has the right to prevent those in control, through the exercise of their natu-

ral human traits from taking advantage of those with whom they deal, and this is at bottom the justification for the regulation of utilities. A public utility is essentially monopolistic in its nature. It deals directly with the individual. Alone the individual is powerless. Elemental justice requires that the state provide a method to protect the individual. Utility corporations composed of and directed by men will seek their own advantages. Without restraint, by reason of its power, the utility always becomes the jury and the judge as between itself and its patrons, as do all monopolies dealing with human necessities. In acting thus the utility has usurped a sovereign right, and because the people of the municipality or the state involved will not long remain willing to forego the exercise of sovereignty, regulation of utilities grew up merely as a means of enforcing equality of dealing between the monopoly and the monopoly's patrons. The fact that this method was adopted does not preclude the possibility of there being other methods of accomplishing the same end, available to government. It might seem, therefore, that we could at this point give our answer to the question here considered by saying that regulation to remain permanent must be able to enforce equality between the utility regulated and the utility's patrons, but a little analysis will show that this is only another way of stating the question and not its answer.

In the more primitive states of society competition usually rendered regulation of prices and conditions, upon which men having something to sell would dispose of it, unnecessary, but as society becomes more complex uniformly the tendency is to center the control of the necessities in fewer hands. Monopoly of some form is usually attendant upon increasing wealth. For our discussion here we need, however, deal only with the natural monopoly which is the subject of the regulation that we are considering. While it is not proper in defining a term merely to refer to an example, yet the distinction between a natural monopoly and other forms of monopoly is not sufficiently marked to warrant a hard and fast definition. Railroads, water systems, lighting companies, telephone companies and the like are examples of natural monopolies and they have in common the characteristic which causes us to decide that they should be regulated in their activity and permitted to remain monopolies rather than eliminated and destroyed as monopolies. They are of such character that competition cannot bring about the results that

may be brought about by forceful and intelligent regulation, because competition necessarily means duplication and the devotion of a greater amount of property to the business in question and the expenditure of a greater amount of money to conduct such business than is necessary under monopoly. Two lines of street railway on the same street cost more to construct and more to operate, but they do not cause more people to live on such street from whom shall be drawn a revenue. However, the fact that the two lines of street railway upon the same street usually result in better service and lower fares, leads to the belief, on the part of those who do not carefully analyze, that the competition has been the cause of such better service and lower rates. Of course this is not true. While for the time being competition between natural monopolies ordinarily gives better service at cheaper rates, yet it is mathematically demonstrable that better service and cheaper rates could be afforded by either one of the competing agencies than by both. The trouble in the past has been that the monopoly in control of a field of operation has not been required by those in authority to do its best, and monopolies, like individuals, do not do their best in a commercial enterprise unless it pays them to do so.

Under competition the tendency of those in control is to take the lowest possible earning upon which the property may be maintained and money secured for the enterprise. The tendency under monopoly is to take the largest possible earning that may be secured by extorting from the patrons all they can be forced to pay. Competition although economically wasteful inevitably produces better results than monopoly without regulation. In fact it very often produces better results than monopoly under some of the regulation that we have known. It may be then considered that in the case of a monopoly regulation would be justified if it only enforced competition and produced conditions that would invite the fullest competition. Such a result would justify the regulation which only sought to destroy the monopoly. But in the case of a public utility, as I have already suggested, such a course would result in more expense than is necessary to get the work done. A further step along the line of regulation would be accomplished if the best service and lowest rates possible to be given by the utility in question were afforded while such utility still remained a monopoly. Necessarily rates cannot be forced lower under competition than will yield sufficient funds

to carry on the business and get the money necessary to be invested. Where the condition of competition produces more than this inevitably combination will result or the destruction of one of the enterprises, and thus the elimination of the monopoly, or the imposition of too high rates upon territory served by one of the competing forces, if there be such territory, in which there is no competition. In short, losses sustained by affording less than reasonable rates must either be recouped from consumers other than those affected by the competition or subsequently recouped from the very consumers who initially benefited by such competition. If in the recent past we had not seen a tendency to question the propriety of monopolies even in a public utility field, I would have assumed that you here would agree that regulation by public authority rather than by competition is better for the patron of a natural monopoly, but inasmuch as this has been questioned in some quarters I have deemed it proper to discuss it here thus briefly.

I lay down the fundamental proposition that in the case of a natural monopoly, such as I have here named, proper regulation may always produce better service at lower rates than can possibly be afforded under competition. Therefore, the first requirement that regulation must meet is that it produce better results than can be produced by competition else it goes down before competition and we must return to a condition of competition between utilities. That regulation can easily do this has been demonstrated in many quarters. That it does not do it in a great number of instances is also undoubted.

Whenever anyone has anything to sell such a one desires to sell it at the highest price obtainable. Whenever anyone is required to purchase something, such a one desires to purchase that thing for the smallest outlay possible. I take it this will be admitted without much argument. From the standpoint of the utility the highest price for the cheapest service is desirable. From the standpoint of the patron the lowest price for the best service is what is wished. For many years in the past, by reason of interference in government and the domination of officials supposed to stand between these large enterprises and their patrons by the enterprises themselves, public utility corporations, and large business concerns as well, have been enabled too nearly to approach the desirable from the seller's standpoint, namely, the highest price the buyer can be induced to pay. The anti-trust laws have done something to dis-

courage this tendency, but they have not done one tithe that aroused public sentiment has accomplished. The wise man seeking his own advantage sees to the future and is not entirely content with the present return, and the wise public utility owner seeing the trend of the times, largely produced by the sins of himself and his predecessors, has glimpsed public ownership in the future, and perhaps public ownership in competition with his privately owned industry. To be sure he has contended strongly against this as being unfair, inasmuch as the publicly owned concern pays no taxes, buys no franchises and if it has incurred losses such losses are made up from taxation upon its patrons as property owners, the larger percentage of which patrons always pay the smaller percentage of such losses. Such representative of private industry, looking to the future, has seen that he cannot permanently impose, as a condition upon which he renders his service, burdens that are disproportionate to the burdens that would be imposed by the public upon itself if such public should conduct such business itself. On the other hand the public must understand that as a purchaser of something which the private owner of the public utility has to sell, and which such public desires to purchase at the lowest possible outlay, the purchase price can never be less than the cost of doing the business, which cost will always be the actual cost of performing the public utility function represented by operating expenses and the like plus an amount sufficient to take care of the worn out capital devoted to the enterprise plus an amount sufficient permanently to induce capital to flow into the public utility industry in competition with investments in other industries. Under private ownership these requirements must always be complied with, else the public utility business will not be well done. The maximum service at the minimum cost is the desirable. The maximum service at the minimum cost will not be given either by monopoly or by competition unless the monopoly is regulated with such a degree of intelligence as to bring about such result. The tendency under competition, as already pointed out, is to produce the maximum efficiency at the minimum cost that can be afforded by the owner of the industry, but this minimum cost inevitably must be higher than the minimum cost at which the same service can be performed by the utility enterprise in possession of a field in which it does not have to divide its revenue with a rival. Regulation, therefore, must supply the inducement or the compul-

sion which is necessary to put the utility owner operating without competition in the same frame of mind in which we find him operating under active and bona fide competition. If this is done utility regulation will be permanent provided the private owner of public utility property in the frame of mind suggested *can* do as well as can be done under some other form of ownership. In short, the limit of the effect of regulation from the outside is the production of a condition which gives to the consumer the maximum of service at the minimum cost that can be afforded by the owner of the utility, and in this cost is always that payment for money to be invested in the utility which is necessitated by competition with unregulated industry.

It being determined that the maximum effect of the very best regulation is a condition wherein the utility is giving to its patrons all that it can afford to give and pay the necessary cost of the business, the next step in the inquiry naturally is to ascertain whether or not there are other methods that may be substituted for regulation which will give to the consumer a better rate for the same or superior service than the private owner can afford to give. Of course such substituted arrangement, even though it gives cheaper rates and better service, must also be free from evils which do not result from the present system of privately owned utilities. In other words, even though we discover some substitutional arrangement which gives better service and lower rates, yet if attendant upon such arrangement are disadvantages not inherent in the present arrangement which off-set the advantages of lower rates and better service, then the substituted arrangement is not desirable. In short, the permanence of any condition is always determined by making a comparison between such a condition and what might result under substituted conditions. What *is* must always be compared with what *may be*.

Having in mind the maximum of service at the minimum cost, it is proper to analyze the elements which go to make up the costs of conducting the privately owned public utility enterprise. It is apparent that our inclination up to this point is to decide that the desirable from the standpoint of the public begins with monopoly unregulated as the least desirable; next, free, unrestricted and bona fide competition; and last, monopoly with adequate regulation which places the private owner of public utility property in the frame of

mind to do the best possible for his consumers. I do not suggest that it is humanly possible to force from without a frame of mind upon an individual similar to that induced by the desire for gain or the fear of loss on the part of such individual. I doubt very much if—to use a common term—regulation can cause a private owner to "extend" himself as much as the fear of losses or the hope of gain under competition. Fear of the law has never been as potent, at least in commercial enterprises in America, as hope of reward. Therefore the private owner will always strive harder to please in order to defeat a rival than he will in order to please the government. But strive however hard he may he cannot do so well if his business is divided as he could do, if so minded, when his business is not divided. In order to survive as against competition, regulation must at least produce a condition a little better than can be afforded by the owner under competition, and as against a system of competition regulation will survive so long as it excels competition in this regard, even though it does not get from the utility owner all such owner can afford to give.

If it were possible to ally with the force of the government the desire of the private owner for gain, the two harnessed together would make a pretty strong team. In many of the states the recognition of the fact that duplication of property and cost of service, necessitated by competition between natural monopolies, is economically unsound has led public authority to lose sight of the fact that it might be possible to ally with itself the selfish inclination of the owner of private property. Thus in some states seldom if ever is a competitor allowed to go into a field already occupied by a public utility of like character. Under such condition it inevitably results that the utility operating exclusively in a field is reluctant to do anything except that which is forced upon it through governmental compulsion. There it holds its place secure in the feeling that any temporary advantage which may be secured will be retained to it and that it is time enough to be good when it is forced to be good. I conclude that the states taking this position do not properly understand their problem and the means at hand to solve it. The justification for monopoly in a public utility field is the advantage which such monopoly accords to its patrons, and it does not lie in the mouth of the representative of such monopoly to urge its protection on the part of the state or the municipality because of a benefit to

the public which it does not accord. It certainly is rather a nervy proceeding on the part of a utility manager to urge that it be protected in its field because such protection is good for its consumers when as a matter of fact the benefits of such protection are retained by such monopoly. It is hard to make the consumer who does not understand fine spun theories or economic fallacies understand that a condition should be tolerated on the ground that it is good for him when as a matter of fact it is not good for him.

It requires a tremendous amount of investigation with attendant use of governmental machinery and expenditure of governmental funds to determine just what a regulated monopoly can afford to do. I think in California we have discovered a method which although it may result in some duplication of public utility properties yet in the long run will save money to the consumers without any injustice to the utilities. In California where a certificate must be obtained from the railroad commission, which is also a public utilities commission, before certain designated utilities can enter a field not theretofore served by them, we have laid down the following rule: If the field is already served by an existing utility of like character the commission will determine whether or not the existing utility is doing its duty toward its consumers, by giving to them the best service at the lowest rate it can afford. If it is, its proposed competitor will not be allowed to come into the territory. If it is not, and the utility desiring to compete can establish the fact that it can give a better rate and more adequate service than is being given by the utility already occupying the field, it is allowed to go in and compete with all the resulting duplication of plant and economic fallacies, etc.

In the first important case involving the entry into a territory already served by a utility by a second utility of like character, the commission permitted the competitor to go in and announced the rule I have here recited. The lighting company already in possession of the field offered to accord, after the hearing, as low rates as its competitor offered to give and made an earnest plea that duplication should not be permitted when no good would result. The commission held that its plea came too late and that the necessary result of granting it the right to reform when a competitor knocked at the door of its territory would be to encourage other utilities and this utility in other territory in their failure to give adequate service

at reasonable rates until a competitor should appear; and likewise no competitor would attempt to go into the field served by another company because such competitor would understand that the net result of its efforts would be to cause the one occupying the field to be good. By this plan we harness together the power of the state and the desire of the private owner for gain. Immediately after this decision was announced and became understood, light rates within the state of California dropped 30 per cent in all non-competitive territory. It is my opinion that it would have cost the state of California more money to have investigated all of the light and power rates of the state and to have forced these companies to have accorded the rates which they voluntarily gave, than the duplication in the territory where we allowed competition to exist represented. Under this potential competition theory, as it has been named, regulation, in my opinion, most nearly produces the result I have suggested must be produced if regulation of monopolies is to be substituted for actual competition, for by it we have put the private owner of public utility property in the frame of mind where he fears competition that has not yet come upon him and seeks to forestall it by doing as well or better than he could afford to do if competition were forced upon him. Therefore, I conclude that regulation, as I here use the term, can remain permanent as against competition. And, of course, by that much the more does it advantage over unregulated monopoly.

But we must likewise look to the future in determining the permanency of the present plan. Privately owned utilities must be able to stand every comparison that is made with publicly owned utilities. Government can enter into the public utility business and has done so in many cases, and it will inevitably follow that government will continue going into public utility enterprises if those in charge of government are persuaded it is the best thing to do. And whenever public ownership shows an advantage which is not off-set by some attendant disadvantage, it will be hard to persuade those in control of government that it is not best for the public to own and operate public utilities. A loud cry goes up from the proponents of private ownership to the effect that public ownership has many disadvantages, such as the creation of an army of public employes, vast political machines, waste by reason of inefficiency under government, and the like, and comparisons are made

between the conditions, particularly as regards railroads, existing here and those existing in foreign countries under public ownership.

Of course, in this discussion I cannot analyze these comparisons, but it is well to have in mind in passing the fact that gifts have been made to many of the railroads in America sufficient to build these railroads. These gifts have been either direct by way of land grants, franchises and the like, or indirect through rates higher than the railroads could have afforded to give. As far as the comparative condition here and abroad is concerned, as I have said, we cannot take the time here to analyze it and deal with these contentions, but from a considerable study of this subject I am convinced that the private owner has not made his case on this point. As far as machine interference in politics is concerned, it would be hard to make anyone familiar with political conditions in America believe that anything worse could result from public ownership than has heretofore existed and does in many places now exist under private ownership. We all know that most of the corruption in city government is directly chargeable to interference of public utility corporations in the affairs of the municipality and likewise there are some states in which the suspicion at least has existed that large transportation companies have had something to do with state government. I believe any intelligent American audience would be willing to dismiss this on the theory that the honors are at least even.

Coming down now to a comparison between a public utility operated by private capital and one owned by the public we must here put the test already decided upon. First, regulation to withstand public ownership must bring about the condition of mind on the part of the private owner we have already discussed, but it also must go further and deal with conditions over which the private owner often has no control. The financing of public utilities in the past has directly resulted in a condition which makes it very hard for the operators of such properties to do what they should by their patrons. Because of the supposed risk it has been urged that larger payments should be made to secure capital. I wish we had time here to discuss this question, but I can only refer you to my views as set forth in an article published in *The Annals of the American Academy of Political and Social Science* in May, 1914, as justification for my conclusion that regulation to be adequate must regulate the securities of utilities. In the publicly owned utility, there will

be no stock and therefore no water. The investment will represent the value of the property and it will not be necessary to make five or six per cent on two or three times the value of the property to pay interest on bonds and dividends on stock, thus necessitating a net earning on the value of the property on this ratio of ten or twelve, or in many cases even a greater per cent. On this comparison the privately owned and operated utility, as now existing, is distinctly at a disadvantage. It need not be so, however, if proper methods are adopted. But only when the amount upon which an earning shall be made is not greater than the value of the property will it be possible for private ownership to compete with public ownership in this regard. Again, the funds of the privately owned enterprise must be honestly devoted to the purposes of the public utility. This is possible of accomplishment but has not been the rule up to the present day. It is unnecessary to call to your attention the disclosures in the New Haven road or the Frisco system or in the United Railroads in San Francisco under the manipulations of Mr. Patrick Calhoun. Ordinary thievery, however, is not the only vice encountered along this line. The practice of officials of utilities in having interests in other corporations, sometimes antagonistic to the property they control, is equally pernicious and must be eliminated if the comparison is to be favorable to private ownership. But perhaps more important than all is the necessity that the investment of private capital must be taken as the basis of earning and not the reproduction value new or even depreciated. To illustrate this I will call to your attention an actual case. Mr. E. P. Ripley of the Atchison, Topeka and Santa Fé Railway Company was on the stand before the California commission in the Wells Fargo Express case. Mr. Ripley was contending for a certain value for the Santa Fé property, which value, as is customary among utility owners, was urged to be par value of the stocks and bonds. The lands of the Santa Fé were listed at a certain amount. During his testimony Mr. Ripley took occasion, as is his wont, to rap public ownership. He was asked whether or not his company would sell to the government at the price named as the value. My recollection is that he said it would. He was next asked whether or not the terminals and other real estate owned by his company would increase in value, and he very vigorously answered in the affirmative. Then the suggestion was made to him that his testimony was not very

favorable to private ownership inasmuch as if the Santa Fé property were purchased today at its present value by the public the investment would become static and the unearned increment in lands and terminals would not of necessity in the future be a basis upon which rates must be earned. And this, in my opinion, is the most important question to be considered and is one of the cases wherein the private owner of public utility property must understand that if he insists on the tremendous increment in value of lands and terminals going always to the private owner inevitably public ownership will result. Why this increment may not justly and possibly legally be claimed by the utilities is too large a question to deal with here. But as a purely practical proposition, if the sum upon which an earning must be made keeps going up and up independent of the investment, some system will be adopted which will make the investment the measure of the sum upon which an earning shall be allowed even though a resort to public ownership be necessary. It is evident to me that regulation, had it begun in time, could have reached this difficulty, but a great part of it in all probability cannot now be touched. To illustrate: Power permits have been given away which are worth immense sums. The theory of these utilities, which will probably be sustained by the courts, is that earnings must be allowed on the value and not the cost. How easy it would have been in the beginning to have imposed a condition in the grant of these power sites, or even in the grant of lands in aid of railroads or bonuses in aid of utilities in cities, to the effect that the grant was only accepted on the condition that it should not be used as a basis for earning. These utilities in accepting the grant would have been bound thereby and they would not have been handicapped in any regard because their capitalization could have been readily kept in the proper relationship to the value of the property acquired by purchase and not to the value of the property given them. In effect, however, the American people have allowed the capitalization of their own generosity and are now required to pay an earning on such generosity, and the more generous they have been the more they have to pay. In the future this condition can be reached by regulation properly applied, but so much has been given away already in franchises as well as property that I am very pessimistic of the ability of regulation properly to deal with this difficulty. Certainly, however, to be permanent regulation for the future must provide a means whereby

the investment shall be the basis upon which an earning shall be allowed.

Some time ago in a decision by myself on the California commission, I pointed out the fact that utility enterprises are at the mercy of the state and that only equitable considerations would finally have weight in regulation. This raised a storm of protest on the part of certain utility representatives. I still am of the opinion that this is true, and I marvel at the short-sightedness of the private owners of public utility property who are now contending for every possible addition to value that the strictest legal considerations will allow and at the same time loudly clamoring for the consideration of equitable claims when such equitable claims are in favor of the private owner and not the public. The Interstate Commerce Commission is today starting upon the valuation of American railroads. Organizations representing these roads have been formed and are contending for every possible element of value that can be thought of. I have no doubt today if the same basis of valuation be put upon these roads, particularly upon their terminals and lands, as will be required under the reproduction cost theory that it will be found that these roads must be permitted to raise their rates in order to produce an earning thereon, and that if this valuation is taken as a basis for sale, if a sale be made to the government, a price will be required to be paid larger than the public should be called upon to pay. Already in many quarters it is being urged that federal lines of steamships be put into operation between the Atlantic and the Pacific Coast with the necessary result that freight rates between terminal points will be reduced. Likewise it is suggested that the government build a transcontinental line of railroad which would further reduce such rates to the end that the owners of these roads can be induced to surrender ownership at a fair value. There can be no question that, if the government decided to enter into competition with the existing roads, it can by such competition vastly reduce their earnings. Likewise in any city, if the municipality decides to operate its own utilities and does not desire to buy the existing utilities, it is not compelled by law to do so, and the net result is what amounts to a practical confiscation of some of the property of these private owners, which confiscation, however, can be lawfully brought about. I have in mind cases in my state where existing water companies in municipalities have been thoughtless

of the people's rights and in two cases that have come to my knowledge the municipalities have put in their own plant in competition with the existing plants, with the result that the private owners have been required to junk their systems. How short-sighted then, I say, are these owners of public utility property, in the face of the power of government to enter into public utility business, in contending for every element of value that may be enforced on the strictest legal grounds. If they are not satisfied to limit themselves to equitable considerations—which in my opinion will always be recognized by the public—they may expect small consideration at the hands of the public when the question of a competing municipal plant arises.

It is my belief, therefore, that regulation cannot remain permanent unless the utilities are willing to meet every comparison, and show that the balance is at least not against them in such comparison, with publicly owned and operated plants and that in doing so they must be limited to equitable demands else they will inevitably be called upon to compete with governmentally owned properties.

Even when doing its best and insisting only upon equitable demands it may still be that private ownership cannot stand up against the publicly owned utility. It certainly is true that unless the privately owned utility does its very best it must yield to public ownership, but when it has done its best then it must be inquired whether its best goes as far as the public can go. We have already referred to franchises and taxes, but of course the advantage of the publicly owned utility in this regard is more seeming than real in the final analysis. For the payment of these taxes exacted from the privately owned plant is merely remitted on the part of the one publicly owned. But there are two other considerations that are worthy of note. Money can always be secured on the public credit more cheaply than on private credit under present conditions. Such being the case the privately owned enterprise will always be at a disadvantage in this regard. Furthermore the reasonable profits over the cost of the borrowed money in a utility owned by the public go into the pockets of the consumers themselves. In these two respects public ownership will always be preferable to private ownership; and unless there are countervailing disadvantages the tendency will be toward a substitution of public ownership for private ownership even when the private owners are doing all they can be expected to do under governmental regulation.

It is therefore my opinion, first, that regulation can be made to be permanent as against a system of competition. Second, that it cannot be made permanent as against a system of public ownership unless the utilities while in private ownership do the very best they can afford to do and pay sufficient earnings upon their capital to induce the necessary investment. Third, that unless some method can be devised to secure investment in public utility enterprises in private ownership on the basis of a return comparable to the interest rate upon which a municipality or other governmental agency can borrow money, the tendency will be to substitute public ownership for private ownership under regulation.

Before I close I would like to impress upon you as forcefully as I can the fact which I think is appropriate for representatives of municipalities to have in mind, that municipalities have as a rule failed when we apply the proper test of regulation, and that they have failed for two reasons—first, because too often municipal authority has been dominated by the very agencies to be regulated; and, second, because the public has not been willing to pay the price of regulation. Regulation requires careful and intelligent effort on the part of people trained in the work. Defeats in the courts will always follow haphazard regulation which is as likely to be unjust to the public as to the utility. Furthermore, in my opinion, the municipalities uniformly make a mistake in contending for the right to regulate utilities that are not subject as to their entire property to the control of such municipalities. Just as I have long ago publicly announced my conclusion that the several states are not equal to the task of regulating railroads within their borders and that this function should be performed by the federal government, so I also conclude that the city cannot properly regulate a hydroelectric power company, for example, which operates in a dozen cities and two or three states.

It will be impossible, however, for me to enlarge on this point here because it will too much prolong this discussion, but I believe it would be wise for the representatives of the cities to have in mind the uselessness of trying to exercise a function which they cannot properly perform.

In conclusion I desire to suggest that both the utility and the governmental agency have always in mind the maximum of service for the minimum of cost, toward which regulation must always tend

until it has reached the limit beyond which it cannot go, and if some other arrangement, such as public ownership, be found which can go further, inexorable economic laws will require the abandonment of private ownership under regulation and the adoption of the other plan.